

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
15 September 2005 (15.09.2005)

PCT

(10) International Publication Number  
**WO 2005/085462 A1**

(51) International Patent Classification<sup>7</sup>: C12P 13/04, (74) Agent: HERMANS, Edith, Elisabeth, Hermine; DSM 13/08, 13/22, 41/00 Intellectual Property, P.O. Box 9, NL-6160 MA Geleen (NL).

(21) International Application Number:  
PCT/EP2005/002103

(22) International Filing Date: 24 February 2005 (24.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
04075597.7 27 February 2004 (27.02.2004) EP

(71) Applicant (for all designated States except US): DSM IP ASSETS B.V. [NL/NL]; Het Overloon 1, NL-6411 TE Heerlen (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): KAPTEIN, Bernardus [NL/NL]; Irenelaan 33, NL-6133 BE Sittard (NL). BROXTERMAN, Quirinus, Bernardus [NL/NL]; Gelrestraat 11, NL-6151 JA Munstergeleen (NL). KIERKELS, Joannes, Gerardus, Theodorus [NL/NL]; Margrietaan 17, NL-6133 BH Sittard (NL). MILCENT, Thierry [FR/FR]; 76, route de Bondy, F-93600 Aulnay-sous-Bois (FR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/085462 A1

(54) Title: ENZYMATIC PREPARATION OF AN ENANTIOMERICALLY ENRICHED BETA-2-AMINO ACIDS

(57) Abstract: The invention relates to a process for the preparation of an enantiomerically enriched  $\beta^2$ -amino acid comprising the steps of reacting a stereoselective hydrolytic enzyme with a mixture of enantiomers of a  $\beta^2$ -amino acid ester and collecting the resulting enantiomerically enriched  $\beta^2$ -amino acid. The invention also relates to a process for the preparation of an enantiomerically enriched  $\beta^2$ -amino acid ester comprising the steps of reacting a stereoselective hydrolytic enzyme with a mixture of enantiomers of a  $\beta^2$ -amino acid ester and collecting remaining enantiomerically enriched  $\beta^2$ -amino acid ester.